

GMU 2 Wolf Management

How Did We Get Here?

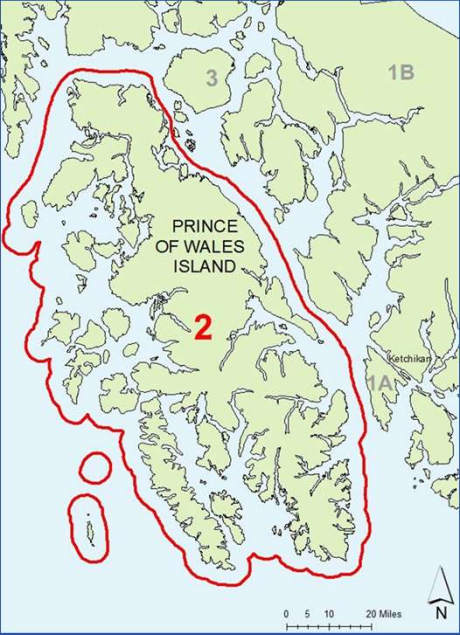
Tom Schumacher and Tessa Hasbrouck

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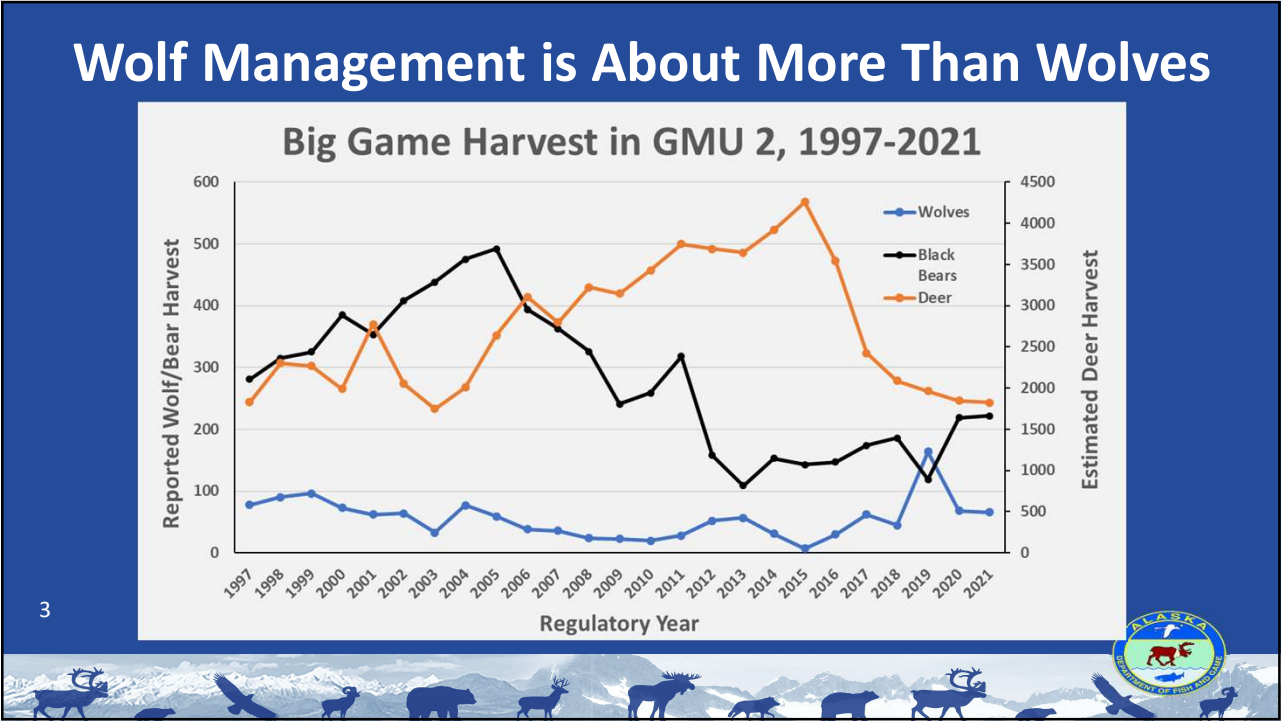
GMU 2 is largely isolated from adjacent GMUs.

- Zarn (2019) Genetic analysis indicates isolation.

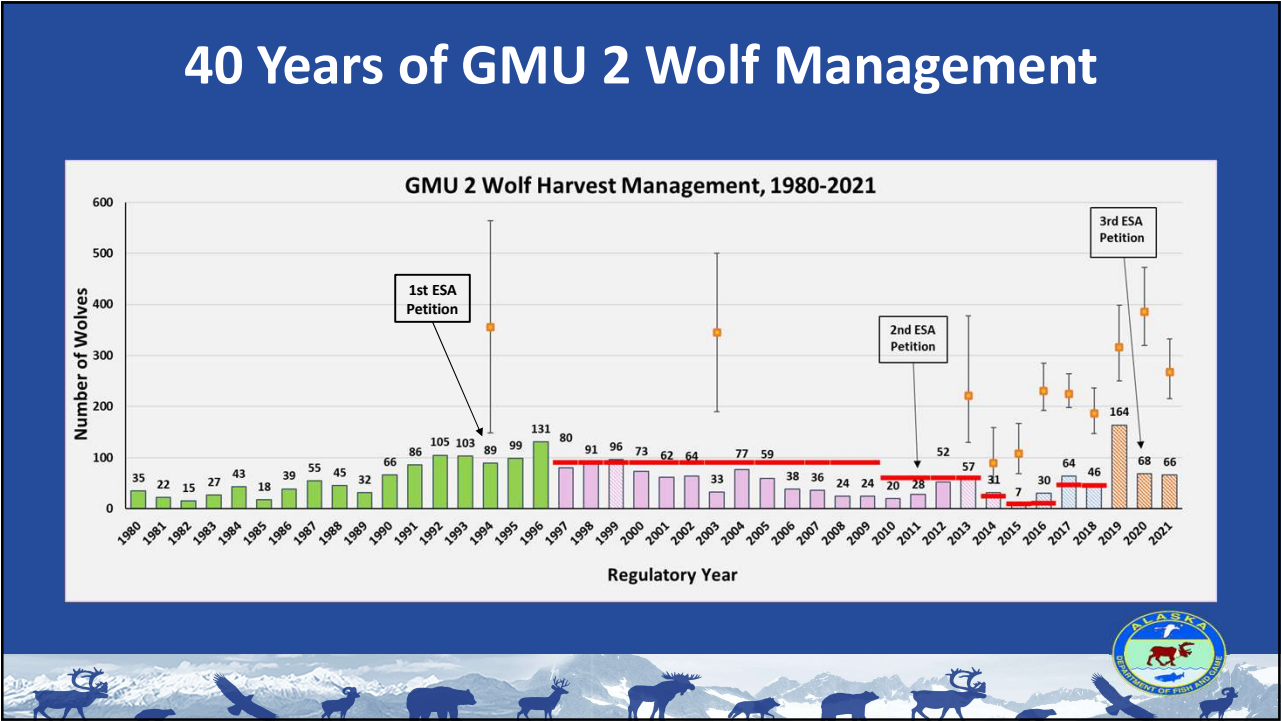




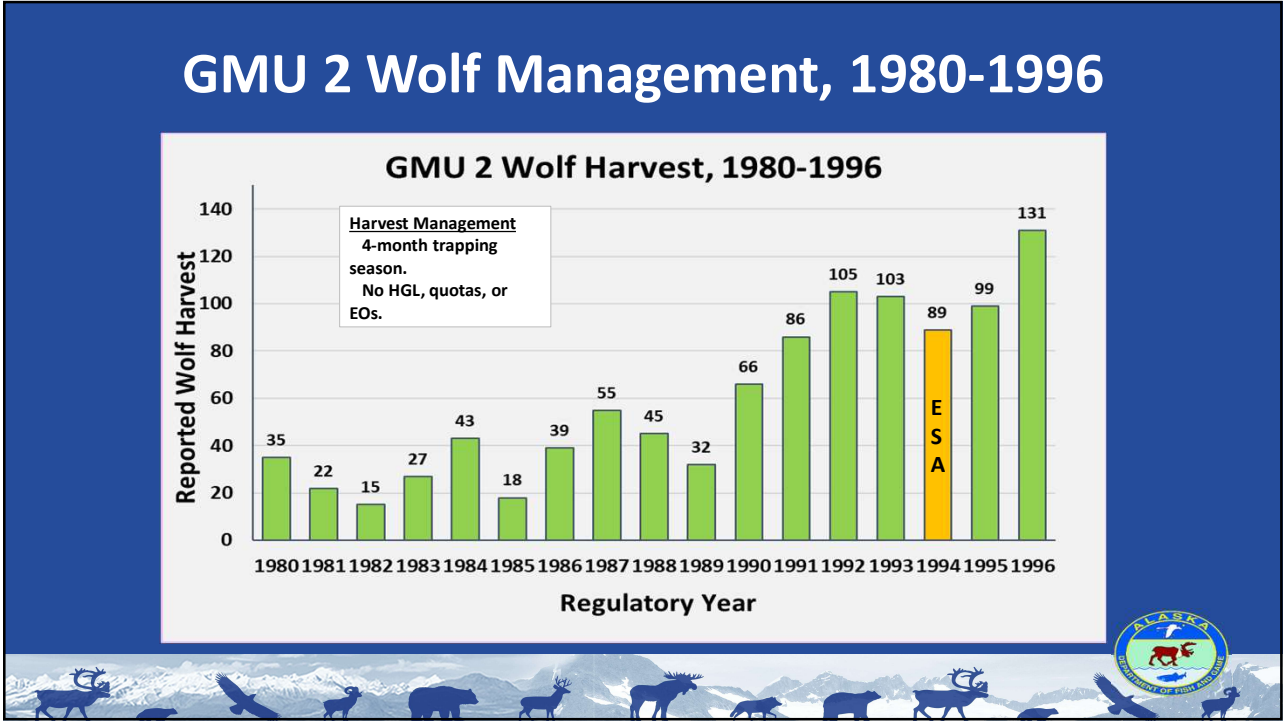
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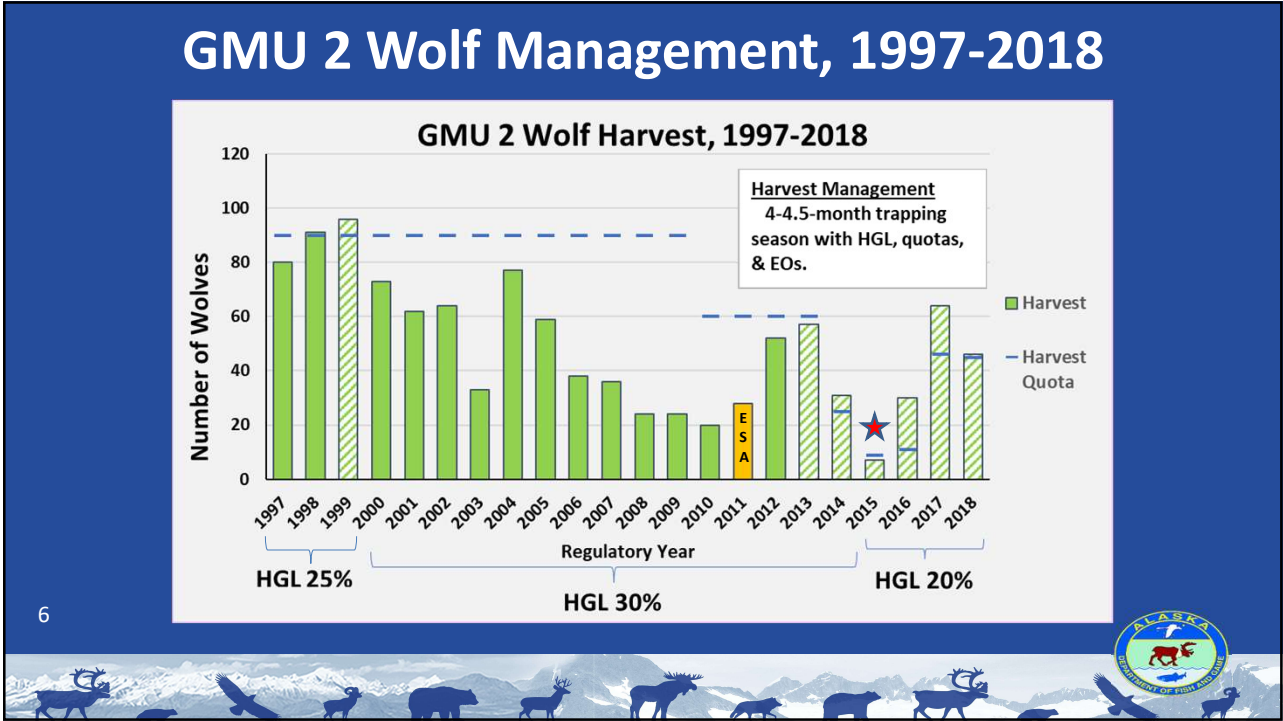
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Why Change GMU 2 Wolf Management?

2015-2018 - Frustration with HGL-Quota system.

- Trapper frustration with management under quota system.
 - Quotas too low.
 - Season length unpredictable.
 - Safety/weather concerns over EO closures with short notice.
- ADF&G had difficulty monitoring harvest to meet quota with 14-day sealing period and lacked a goal for population.

7



7

What Would Be Better?

Trappers

- Greater predictability to plan trapping effort.
- Longer notice on when season would close.
- Public goal for GMU 2 wolf population.

ADF&G

- Sustainable harvest management.
- A measurable goal for the population, not just harvest.
- Reduced controversy over management decisions.

8



8

Current GMU 2 Wolf Management

2017-2018 – plan developed with broad public involvement.

2019 Board meeting.

- Eliminated HGL.
- Adopted fall population objective, 150-200 wolves.
- Manage harvest by season length with EO issued before trapping season opens.
- Confirm fall population meets objective with regular estimates.

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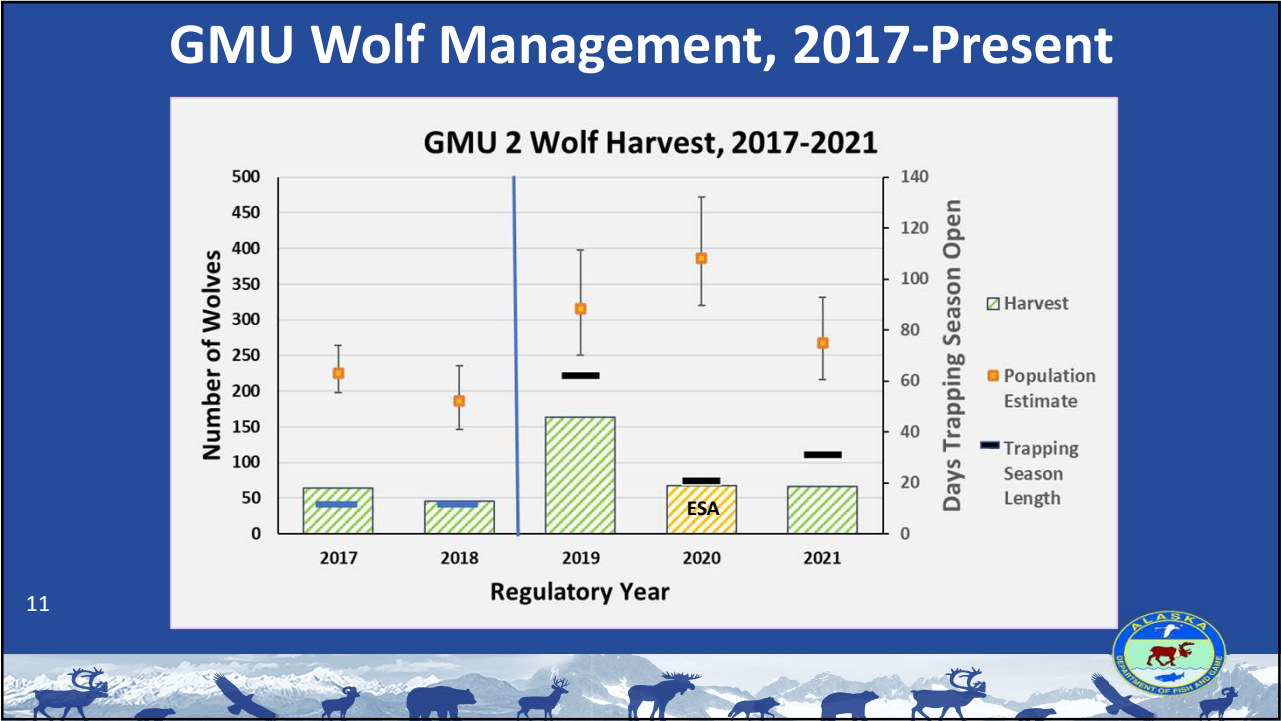
Key Features of Current Management

- Population Objective – a measurable goal that focuses on the number of live wolves in the population.
- Regular Population Estimates.
- Harvest managed by varying opportunity relative to abundance.
- Predict harvest based on recent harvest rates. Sustainable harvest range, not a quota.
- Trapping season closure date announced before the season.
- Some in-season harvest monitoring capability.

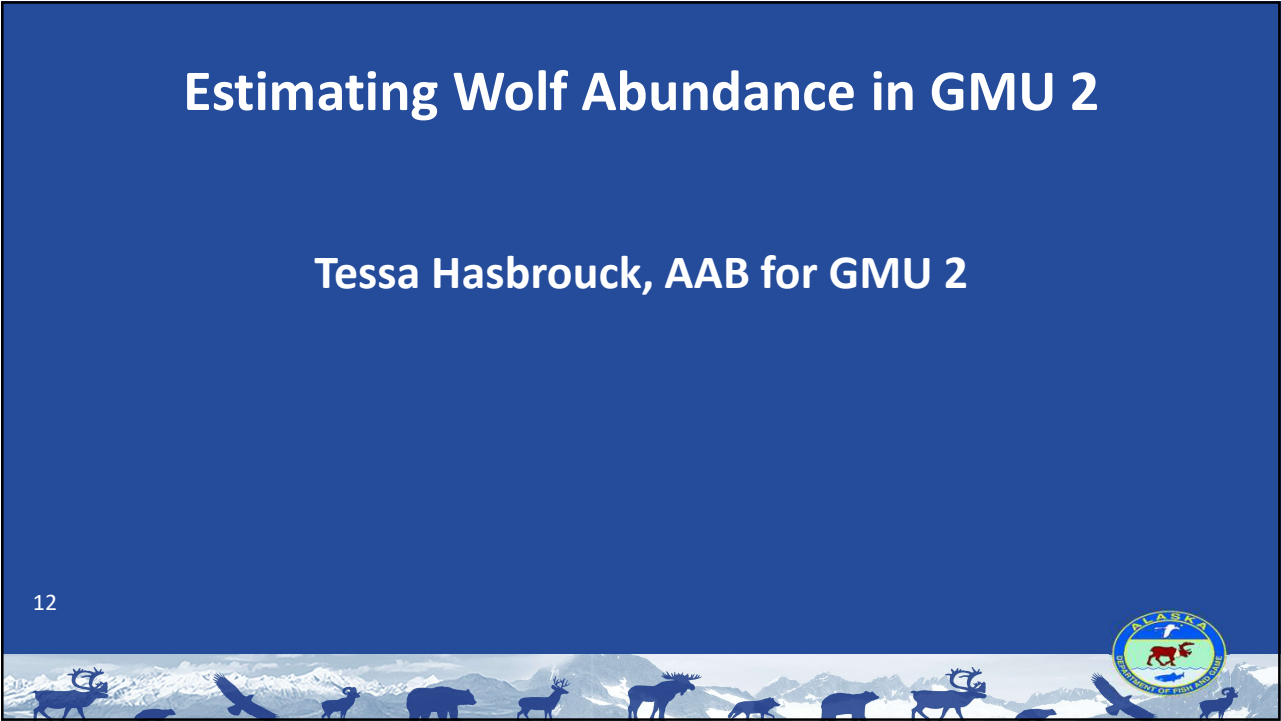
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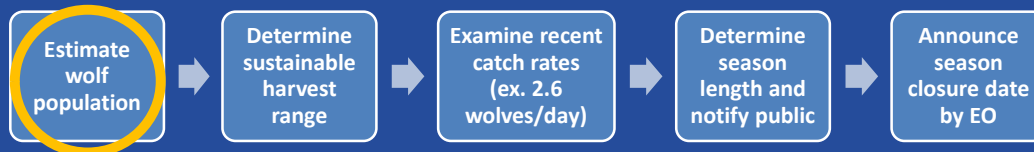
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GMU 2 Wolf Management Strategy

- Fall Population objective = 150-200 wolves



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Population Estimate

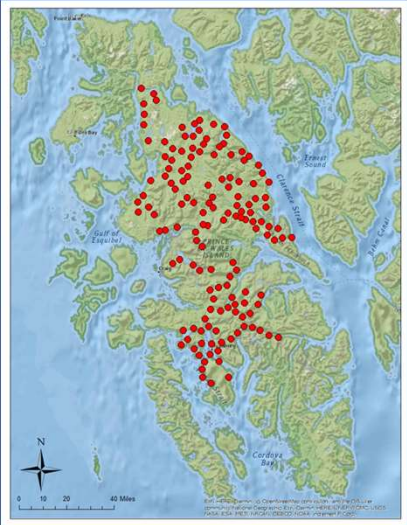
- Cannot count wolves, can only estimate numbers.
- Statistical Method: Spatially explicit capture-recapture (SECR)
 - Form of mark-recapture
 - Noninvasive
 - Requires animals to be “detected” and ID’d at known locations and on known dates
 - Wolves identified by DNA

14


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Collecting Genetics

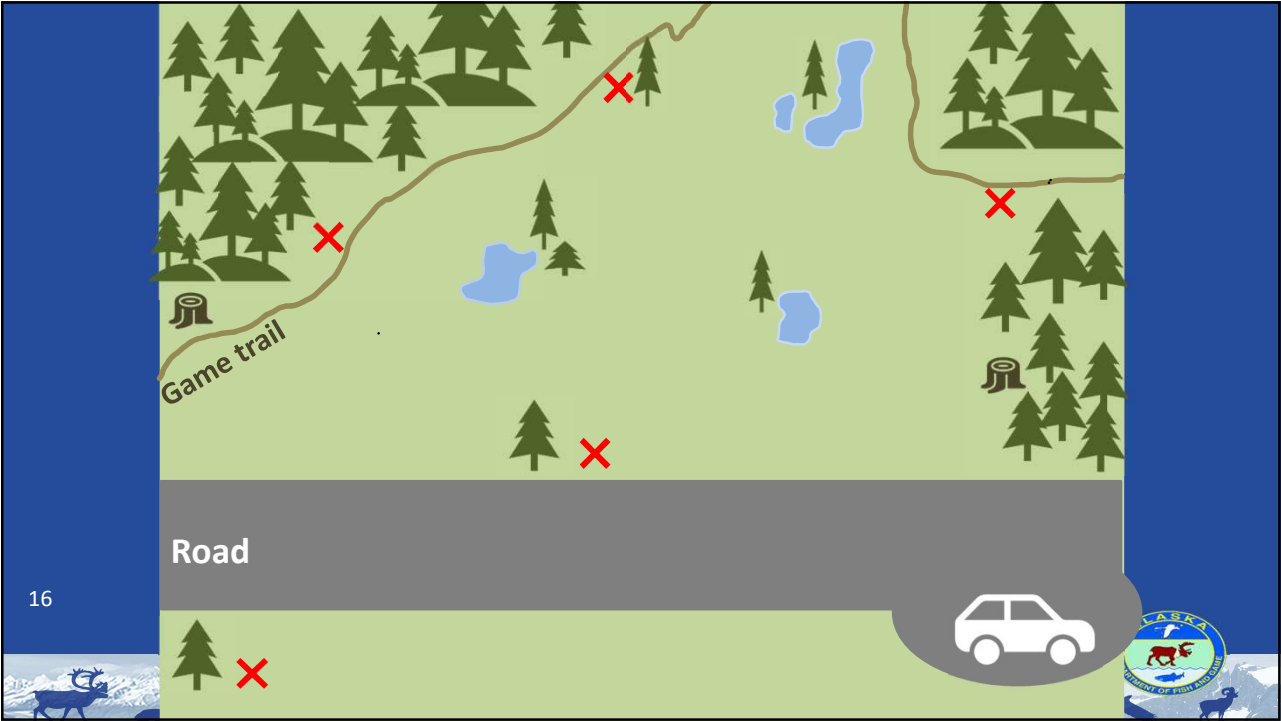
- Hair boards
- 143 nodes
- 5 boards per node
- Cooperators
 - Hydaburg Cooperative Association
 - ADFG
 - USFS
- Monitor hairboards for 10 weeks in the fall




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Camera Project

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2

0

2

2

Sep

Oct

Nov

Dec

Jan

Feb

Mar

Apr

2

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2

3

May

Jun

Jul

Aug

Sep

Oct

Nov

Hair collection

↓

Send hair samples and samples from harvested wolves to lab

Lab processes data

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ADFG receives raw data and models population estimate

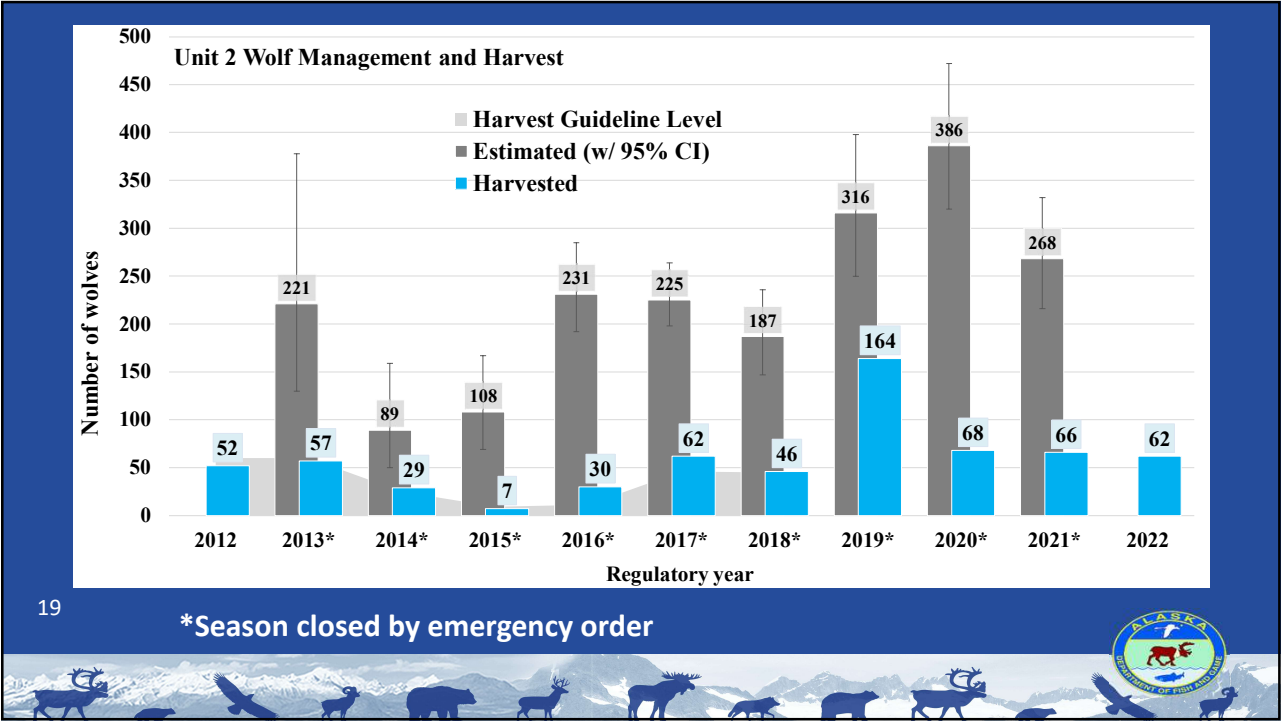
Season and estimate are announced, trapping starts

Wolf harvest sample collection

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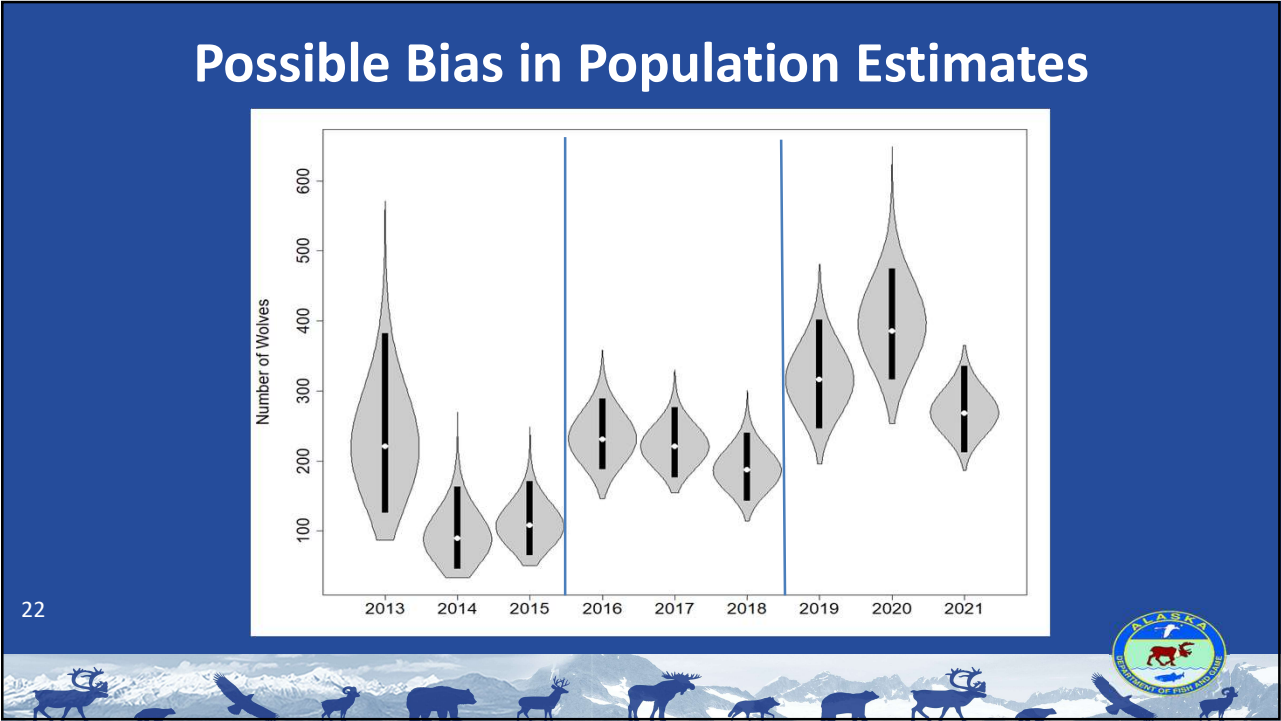
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New Findings Since 2019

1. Likely bias in pre-2019 population estimates.
2. GMU 2 wolves mostly isolated with high degree of inbreeding (Zarn 2019).

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How Many Wolves Do We Need in GMU 2?

ADF&G's Goal – sustainably harvestable wolf population that balances effects of wolf predation with deer hunter harvest.

- Since 2020 managing for a fall population > objective.
- Sustainable population size likely related to degree of isolation and genetic diversity within the population.

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Ongoing Work and Future Plans

- Update GMU 2 Wolf Management Plan.
- Evaluating refinements to SECR population estimates.
- Camera-based estimation techniques – PhD project with UAF.
- Genetic evaluation – structuring, connectivity, and genetic diversity among Southeast wolf populations.
- PVA – modeling to estimate size for a sustainably harvestable GMU 2 population.



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Questions?



24